

ATTORNEY'S DOCKET NUMBER

4684-024

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

10/536863

INTERNATIONAL APPLICATION NO.

PCT/KR2003/002606

INTERNATIONAL FILING DATE

November 28, 2003

PRIORITY DATE CLAIMED

November 28, 2002

TITLE OF INVENTION

**MICROPUMP AND CELL CULTURE UNIT UTILIZING GAS GENERATION AND
PRODUCTION METHOD THEREOF**

APPLICANT(S) FOR DO/EO/US

Seung Seob LEE; Yo Han CHOI; Sanguk SON

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) as indicated below.
4. ☐ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is transmitted hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendment has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☒ An Application Data Sheet under CFR 1.76
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4)
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4)
20. ☒ Other items or information: **Front Page of WO 2004/048254 A1**

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/536863		INTERNATIONAL APPLICATION NO. PCT/KR2003/002606		ATTORNEY'S DOCKET NUMBER 4684-024	
The following fees are submitted:				CALCULATIONS PTO USE ONLY	
21. <input checked="" type="checkbox"/> Basic national fee		... \$ 300.00		\$ 300.00	
22. <input checked="" type="checkbox"/> Examination fee					
If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)		... \$ 100.00		\$ 200.00	
All other situations		... \$ 200.00			
23. <input checked="" type="checkbox"/> Search fee					
Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Search Authority		... \$ 100.00		\$ 500.00	
International Search Report prepared and provided to the Office		... \$ 400.00			
All other situations		... \$ 500.00			
TOTAL OF 21, 22 and 23 =				\$1,000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof					
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		× \$250.00	\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	8 - 20 =	0	× \$ 50.00	\$	
Independent Claims	3 - 3 =	0	× \$200.00	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$	1,000.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.				(\$	500.00)
SUBTOTAL =				\$	500.00
Processing fee of \$130.00 for furnishing the English translation later than the 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	\$ 0.00
TOTAL NATIONAL FEE =				\$	500.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$ 0.00
TOTAL FEES ENCLOSED =				\$	500.00
				Amount to be refunded:	
				Amount to be charged	

- a. ☐ A check in the amount of \$ _____.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. 07-1337 in the amount of \$ ____ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1337. A duplicate copy of this sheet is enclosed.
- c. ☒ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. Kindly use the attorneys' address associated with the following Customer Number for future correspondence.

SEND ALL CORRESPONDENCE TO:

LOWE HAUPTMAN & BERNER, LLP
1700 Diagonal Road, Suite 300
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(703) 684-1111

Customer
No. 22429
PATENT TRADEMARK OFFICE

SIGNATURE

Benjamin J. Hauptman

NAME

29,310

REGISTRATION NUMBER